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No Date

NORTH POLE REFINERY
North Pole, AK
EPA ID No. AKD000850701

WASTE CHARACTERISTICS

MAPCO North Pole Refinery uses the processes of distillation to separate crude oil into its various fractions. An extraction unit is employed to separate the high octane components of the crude to produce gasoline. Unused portions of the feedstock are returned to the Trans-Alaska Pipeline. Wastes generated include oily wastewaters, sump sludges, corrosion inhibitors (D001), boiler treatment chemicals (D001, D002), sodium hydroxide (D002), and spent solvents (F001, F002). These wastes may contain benzene, toluene, xylene, ethylbenzene, acetone, naphthalene, and other aromatic hydrocarbons. Heat exchanger bundle cleaning sludges (K050) may have been dumped into the oily water sewer system.

REGULATORY HISTORY - (a) order requires closure plans

A 1984 inspection indicated that the refinery appears to be a hazardous waste generator only. In June 1986, MAPCO began recovering petroleum products from six collection wells on-site. ADEC issued a Compliance Order in December 1986 requiring the facility to install additional collection wells. A March 1987 inspection indicates that the North Pole Refinery is in fact a TSD facility. MAPCO filed a notification of hazardous waste activity in Mary 1987. In January 1988, EPA issued a Complaint and Compliance Order requiring sampling, analysis, monitoring, and reporting of hazardous wastes or constituents. An RFA was completed in 1988. 1/6/89 - CAFO 3008a 1/89 3008h order on consent RFI WP approved

WASTE MANAGEMENT UNITS

Waste management units at this facility include the oily water sewer system, 27 sumps, an oil/water separator tank, a slop oil tank, two wastewater lagoons, two wastewater storage tanks, the distillation furnace stack which was used for evaporation of wastewater, the tetraethyl lead sump, a hazardous waste container storage area, an equipment cleaning area, rail and truck loading areas, a contaminated soil/gravel pile, a former boneyard area, and numerous product spill areas. All tanks are in lined impoundments.

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POTENTIAL FOR RELEASE/EXPOSURE

Ground water contamination was detected at the refinery in 1982. Since then, a total of 42 observation wells, eight monitoring wells, 23 recovery wells, several french drains, and an oil barrier have been installed. Through June 1988, an estimated 276,000 gallons of product had been recovered from recovery wells. No action has been taken to treat dissolved contaminants in ground water. Surface water releases are unlikely. The town of North Pole and its drinking water wells are downgradient and about one mile from the facility. About 250 residences are connected to the municipal ground water supply. The remainder the of population uses water from private wells, many of which are as shallow as 20 feet. One on-site well is used for potable water supply. It is upgradient of major spill areas.

IMAGED

DSOC - listed waste leaking into groundwater